

# Flight Standardization Board (FSB) Report

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Boeing 757, 767 B757-200/300 B767-200/300/400

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#### RECORD OF REVISION

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#### HIGHLIGHTS OF CHANGE

**Revision 9:** Incorporated B757-200ADV to B767 LDS (installed by STC ST01750WI) differences in to MDR Table and other applicable sections. Removed acceptable ODR tables from Appendix 2 (available on request). Updated Normal Landing Flap Setting to reflect Boeing's current guidance. Added note to allow use of reviewing manuals in lieu of segment currency, but not for consecutive periods. Other changes made for clarity, formatting and standardization

**Revision 8:** Incorporated B757-200ADV to B767 CFD differences in to MDR Table. Added B757ADV to B767 CFD acceptable ODR Tables. Added table to Appendix 3 to cover mixed fleets (B757 and B767) that have both flight deck displays (ADV and CFD). Clarified the requirement for segment currency when flying both flight deck displays (ADV and CFD) by removing the note allowing currency, or regaining currency, by reviewing manuals. Attempted to standardize type rating terminology to reflect that the B757 and B767 are common, but separate type ratings. Changed "FAR" references to "14 CFR." Added Appendix 8, Example HUD Training Requirements. Removed Part II, FSB Report Board Record. Other changes were made for clarity and standardization.

**Revision 7:** Incorporated a Flat Panel Display (FPD) modification (installed by ST02165NY for B767 and ST02372CH for B757) that replaces all primary and secondary flight instruments with four 10" LCD's and a single integrated electronic standby instrument.

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#### 1. PURPOSE AND APPLICABILITY

**Note:** All regulatory references within this report are found in Title 14 of the Code of Federal Regulation (14 CFR) unless otherwise indicated.

- 1.1 FSB Report Specifications. This FSB report specifies Federal Aviation Administration (FAA) master training, checking, and currency requirements applicable to crews operating B757 and/or B767 Aircraft under 14 CFR part 121. Various sections within the report are qualified as to whether compliance is required (considering the provisions of Advisory Circular (AC) 120-53, Guidance for Conducting and Use of Flight Standardization Board Evaluations), recommended, or advisory in nature. Provisions of the report:
  - a) Define common pilot type ratings assigned to the B757 and B767;
  - b) Describe Master Common Requirements (MCR) applicable to all B757 and B767 aircraft;
  - c) Describe Master Difference Requirements (MDR) for crews requiring differences qualification for mixed-fleet-flying or transition;
  - d) Describe acceptable training program and device characteristics when necessary to establish compliance with pertinent MDRs;
  - e) Set checking and currency standards including specification of those checks that must be administered by FAA or operators; and
  - f) List regulatory compliance status (compliance checklist) for B757 and B767 for 14 CFR, ACs, or other operational criteria for information of FAA field offices.
- 1.2 FSB Report Comprehensiveness. This report includes:
  - a) Minimum requirements for field offices, (e.g., MDRs, type rating designations, etc.),
  - b) Information which is advisory in general, but may be mandatory for particular operators if the designated configurations apply and if approved for that operator (e.g., MDR footnotes), and
  - c) Information which is used to facilitate FAA review of an aircraft type or variant proposed for the use by an operator (e.g., compliance checklist for FAA Field Office use)
- 1.3 Previous FSB Report Status. Previous B757, B767 FSB reports are superseded. Provisions of this report are effective until amended, superseded, or withdrawn by subsequent FSB determinations.

- 1.4 FSB Responsibility/Authority. Determinations made in this report are based on the evaluations of specific B757 and B767 aircraft equipped in a given configuration and in accordance with (IAW) current regulations and guidance. Modifications and upgrades made to the models described herein, or introduction of new aircraft variants, may require amendment of the findings in this report. The FSB reserves responsibility and authority to re-evaluate and modify sections of this report based on new or revised AC material or 14 CFR, aircraft operating experience, or the testing of new or modified aircraft under the provisions of AC 120-53.
- 1.5 AQP/FSB Report Relationship. Differences between this report and an operator's proposed training, checking, and currency requirements under an Advanced Qualification Program (AQP) must be justified and documented as part of the applicant's AQP approval process. Program approvals under AQP need to ensure the basic provisions and requirements of this report have been addressed, and where necessary, coordination with the appropriate FSB has been completed.

#### 2. PILOT TYPE RATING REQUIREMENTS

In accordance with the provisions of the pertinent CFR and AC 120-53, as revised, the B757 and B767 are assigned common, but separate, type ratings and are designated "B757" and "B767".

- 3. MASTER COMMON REQUIREMENTS
- 3.1 Common Requirements (All B757s and B767s).
- 3.1.1. Autopilot Engage Altitudes, 14 CFR § 121.579. As referenced by approved airplane flight manuals (AFM), the B757 and B767 have specifically been evaluated for autopilot suitability for engagement at or above 200 feet AGL during takeoff, using CWS (as installed) or CMD modes. For 14 CFR part 121 operators, authorization for autopilot engagement during takeoff is as designated by operations specifications.
- 3.1.2. Minimum Altitude for Autopilot Use/Non-Precision Approaches. The B757 and B767 have specifically been evaluated for autopilot suitability for continued use during non-precision approaches to an altitude of not less than 50 ft. below minimum decent altitude (MDA) in "vertical speed", "flight level change", or "VNAV" modes.
- 3.1.3 Landing Minima Categories, 14 CFR  $\S$  97.3. All operators should comply with 14 CFR  $\S$  97.3 and use an approach category appropriate to the speed of  $V_{REF}$  at maximum certificated landing weight. Air carriers may be further restricted by their operations specifications for circling approaches.
- 3.1.4 Normal Final Landing Flap Setting, 14 CFR § 91.126(c). For normal landings, use flaps 25 or flaps 30. When conditions permit, use flaps 30 to minimize landing speed and landing distance. Flaps 25 provides better noise abatement and reduced flap wear/loads. Runway length and conditions must be taken into account when selecting a landing flap position.
- 3.1.5 No Flap Approach. Training and checking applicable to B757 and B767 aircraft does not require demonstration of no flap/no slat approaches, if other flap non-normal procedures are addressed. Completion of a demonstration in any B757 or B767 variant suffices for any other variant.

- 3.2 Special/Unique Requirements. Reserved.
  - 4. MASTER DIFFERENCE REQUIREMENTS
- 4.1 MDR for variants of the B757 and B767 are shown in Appendix 1. These provisions apply when differences between variants exist which affect crew knowledge, skills, or abilities related to flight safety (e.g., Level A or greater differences).
  - 4.2 MDR Footnotes. Footnotes to MDR requirements define acceptable "required means" or "alternate means" of compliance. A footnote can indicate requirements that are less restrictive than the basic designation or more restrictive than the basic designation depending on the significance of the differences between particular variants.
  - 4.3 Terminology. The term "must" is used in this report and certain MDR footnotes even though it is recognized that this FSB report, and AC 120-53 on which it is based, provides one acceptable means, but not necessarily the only means of compliance with 14 CFR part 121 Subpart N and O requirements. This terminology acknowledges the need for operators to fully comply with FSB report MDR provisions if this AC method is to be applied as that operator's means of compliance with 14 CFR part 121. Operators who choose this method must comply with each applicable MDR provision including footnotes. **Partial or selective application of the process or its provisions does not constitute an acceptable means of compliance with 14 CFR part 121 under AC 120-53.**
  - 4.4 Definitions. As used in this report, Classic Flight Deck (CFD), refers to all currently operating B757s and B767s exclusive of the B767-400ER, or B767-200, B767-300, and B757-200 with Flat Panel Displays (FPD) installed under STC's ST02165NY and ST02372CH, or the B767-300 with the Large Display System (LDS) installed under STC ST01750WI. The B767-400ER was the first of the B757 or B767 variants to incorporate an advanced flight deck with PFD/ND display configuration under an amended Type Certificate. For purposes of model differentiation in this report, the B757-200, B767-200, and B767-300 (includes the -300F) with the IS&S FPD modification is designated as B757-200ADV, B767-200ADV and B767-300ADV (ADVANCED). The B767-300 (includes -300F) with the Rockwell Collins LDS modification (STC ST01750WI) is designated B767LDS. As used in this report, B757-200PF refers to the B757-200 Package Freighter.

#### 5. ACCEPTABLE OPERATOR DIFFERENCE REQUIREMENTS (ODR)

5.1 ODR Tables. ODR tables provide a uniform means for operators to comprehensively manage differences and related aircraft differences training programs and provide a basis for FAA approval of mixed fleet flying. ODRs are approved for each fleet by an operator's FAA Principal Operations Inspector (POI) in accordance with this FSB report recommendations. ODRs must be prepared, reviewed, approved and then used to govern training before start of operations. The operator retains approved ODRs with a duplicate copy as part of FAA certificate-holding district office (CHDO) records. Copies should also be forwarded to the B757/B767 FSB Chair, Seattle AEG (SEA-AEG). Guidance can be found in AC 120-53.

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#### 6. FSB SPECIFICATIONS FOR TRAINING

- 6.1 General.
- 6.1.1 Assumptions Regarding Airmen Previous Experience. The provisions of Section 6 of this report apply to programs for airmen who have experience in both 14 CFR part 121 air carrier operations and multi-engine transport turbojet aircraft. For airmen not having this experience, additional requirements may be appropriate as determined by the POI, FSB, and AFS-200.
- 6.1.2 B757 or B767 Individual Programs. Numerous training programs for either the B757 or B767 are already FAA approved. Principal Operations Inspectors of operators initially introducing a B757 or B767 type may approve programs consistent with programs previously approved. For information regarding previously approved programs, FAA POIs of other existing B757 or B767 operators may be consulted. In the event of uncertainty regarding evaluation of a proposed program, the FSB should be consulted.
- 6.1.3 Integrated B757 and B767 Classic Flight Deck Programs. An example of an acceptable differences training program for a B757 and B767 CFD integrated fleet is provided in Appendix 3. This differences program assumes a trainee has completed B757 or B767 CFD transition training and will receive differences training for the other type. Coverage of differences may be completed coincident with each phase of transition training, or following completion of transition to the first variant. Any proposed program that is less comprehensive than the program shown in Appendix 3 should not be approved without coordination with the FSB. For B757 and B767 CFD integrated programs already approved, reductions through provisions of 14 CFR §§ 121.401 (d) or 121.405 (d) [reference the example in Appendix 3] should not be made without coordination with the FSB. Less comprehensive programs will be approved only if equivalence can clearly be established, or other special factors apply. Examples of special factors that may be considered by the FSB include allowing credit for previous applicable experience (e.g., operators implementing combined B757 and B767 fleets who have crews previously qualified on one type); or increases in the quality or effectiveness of the training process (e.g., new types of training devices); etc.
- 6.1.3.1 B767-400ER Program. The currently approved B767-400ER differences training curriculum assumes a trainee has completed either B767 CFD transition training or B757 CFD transition training with differences training to the B767 CFD, as specified in paragraph 6.1.3. Accordingly, coverage of differences to the B767-400ER variant should be completed immediately following B767 CFD transition training or B757 CFD transition training with differences training to the B767 CFD. Any proposed program, including those proposed under AQP that is less comprehensive than the FSB-approved curriculum should not be approved without coordination with the FSB. For B767-400ER training programs already approved, reductions through provisions of 14 CFR §§ 121.401 (d) or 121.405 (d), should not be made without coordination with the FSB. Less comprehensive programs will be approved only if equivalence can clearly be established, or other special factors apply. Examples of special factors that may be considered by the FSB include allowing full or partial credit for previous applicable experience (e.g., trainees having previous experience with the identical flight instrument display format, Pegasus-FMC, and/or other identical or similar systems' components) to that of the B767-400ER or increases in the quality or effectiveness of the training process (e.g.

new types of training aids/devices). Reference also Appendix 7 for FSB approved B767-400ER Differences Training Curriculum Options.

- 6.1.3.2 B767-200ADV/-300ADV/B757-200ADV Programs. An example of an acceptable differences training program from CFD to ADVANCED Flight Deck is provided in Appendix 3. The differences training curriculum for the aircraft listed assumes a trainee has completed CFD training and is a current and qualified line pilot in B757 and/or B767 aircraft. Accordingly, coverage of differences to the ADV variants should be completed immediately following CFD initial training, CFD transition training, or be integrated into these programs. Any proposed program, including those proposed under AQP that is less comprehensive than the FSB approved curriculum should not be approved without coordination with the FSB. For training programs already approved, reductions through provisions of 14 CFR §§ 121.401 (d) or 121.405 (d), should not be made without coordination with the FSB.
- 6.1.3.3 B757ADV to B767CFD or B767LDS Programs. An approved CFD or LDS differences training curriculum for the aircraft assumes a trainee has completed ADV flight deck training and is a current and qualified line pilot in the B757ADV aircraft and will receive differences training for the other type. If initial qualification training on the B757ADV will be immediately followed by B767CFD or LDS qualification, then coverage of differences may be completed coincident with each phase of training of, or following completion to, the ADV qualification . Any proposed program, including those proposed under AQP that is less comprehensive than the program shown in Appendix 3 should not be approved without coordination with the FSB. For programs already approved, reductions through provisions of 14 CFR §§ 121401 (d) or 121.405 (d) should not be made without coordination with the FSB.
- 6.2 Initial, Upgrade, or Transition Training
- 6.2.1 Pilots: Initial, Transition and Upgrade Ground Training, 14 CFR § 121.419. Initial, transition, or upgrade ground training for either the B757 or B767 or both is accomplished as specified by 14 CFR part 121. No unique provisions or requirements are specified. However, when more than one model is flown, or transition from one model variant to another is accomplished, appropriate instruction in unique aircraft systems will be required for each variant, consistent with MDR provisions. Training program hours may be reduced as specified in 14 CFR § 121.405, but not in a manner or in areas which invalidate compliance with provisions of the MDRs.
- 6.2.2 Pilots: Initial, Transition, and Upgrade Flight Training, 14 CFR § 121.424. Initial, transition, or upgrade flight training for either the B757 or B767 or both is accomplished as specified by 14 CFR part 121. No unique provisions or requirements are specified. When initial, transition, or upgrade flight training and practice specified in 14 CFR § 121.424 is accomplished, and several variants are to be flown, training is considered to suitably address each variant, since flight characteristics of all variants are the same or equivalent. Training program hours may be reduced as specified in 14 CFR § 121.405, but not in a manner or in areas which invalidate compliance with provisions of the MDR or ODR tables.

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6.2.3 Crewmember Emergency Training, 14 CFR § 121.417. Appropriate emergency training must be given to each crewmember on the location, function, and operation of emergency equipment that is different in each variant of the B757 or B767. Where equipment is common, instruction may be adjusted for those crewmembers qualified and current on other variants, provided records are available, which demonstrate that crewmembers meet 14 CFR §§ 121.417 and 121.683(a) requirements. For example, where elements of interior configurations are common, training may be simultaneously credited for variants. Conversely, for different emergency equipment, doors, slides, slide/rafts, or other interior configuration elements, even when within the same model or model variant (e.g., B757-200 and B757-200PF), training on emergency equipment for each variant is required in accordance with MDRs. Training on the location, type, or operation of this equipment may be accomplished by pictures or videotape, provided adequate knowledge of its use is demonstrated to an authorized representative of the operator.

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Emergency training also consists of instruction in crewmember emergency assignments and procedures including crew coordination and communication, the handling of emergency or other unusual situations, and emergency performance and observation drills that are specific to each variant flown.

IAW 14 CFR § 121.417 and FAA Order 8900.1, emergency training requirements refer to two types of training: "general" and "aircraft specific" emergency training. General emergency training is instruction on those emergency items that are common to the B757 and/or B767 and all aircraft in an operator's fleet, e.g., instruction on fire extinguishers and firefighting procedures, if common to all aircraft. Aircraft-specific emergency training is training on those items that are specific to the B757 or B767 aircraft. An example of aircraft-specific emergency training is instruction on the location of emergency equipment.

As part of an approved training program, an operator may use many methods when conducting aircraft- specific emergency training including classroom instruction, pictures/viewfoils, videotape, ground training devices, Computer-Based Training (CBT), and/or static aircraft training.

There are no specified training program hours for Crewmember Emergency Training, however, a chart in FAA Order 8900.1 Volume 3, Chapter 19, Section 4 provides "national norms" for the approval of general emergency training program hours related to new hires. The complexity of the different variants flown and the complexity of the type of operations conducted should be considered when approving B757 and B767 aircraft-specific emergency training.

- 6.2.4 Automatic Landings. If an operator conducts automatic landings in either the B757 or B767 then appropriate training must occur. This training must be conducted either in a B757 or B767 simulator or in the actual airplane, and may apply to one or both aircraft.
- 6.2.5. Areas of Emphasis. The use and operation of the Hydraulic Motor Generator (HMG), as installed, following total AC electrical failure, must be emphasized in training programs. (Deleted Material, Rev. 3)

6.2.6 Future Air Navigation (FANS 1). Flight Crews operating aircraft equipped with FANS software should receive appropriate instruction in its general operational functions, appropriate uses for areas of operation, routes or procedures to be flown. General training should address communications, navigation and surveillance (CNS) functions covered by FANS, Required Navigation Performance (RNP), and Actual Navigation Performance (ANP). In addition, sufficient training in use of data link communication and Automatic Dependent Surveillance (ADS) to ensure adequate knowledge, skill and proficiency for flight crews to operate the above system(s) in typical daily operations (requiring their use) should be provided.

#### 6.3 Differences Training.

- 6.3.1 Differences Training, 14 CFR § 121.418. Unless an initial or transition program is completed for each variant, differences' training is necessary for each B757 or B767 variant as shown in the MDR. A training program addressing pertinent differences described by individual operator ODRs, including normal, non-normal, and alternate operations, is required for each variant flown. Ground Training in the following subjects for the B757 or B767, as applicable to the variant group(s), is/are required:
  - a) General description of the aircraft
  - b) Performance characteristics
  - c) Engines
  - d) Airplane Systems (e.g. EICAS, hydraulics, electrical...)
  - e) Normal, Non-normal, and Alternate Procedures
  - f) Limitations
  - g) Other instruction in features unique to the operator's fleet of B757/B767 airplanes

A sample of an acceptable minimum program for differences is shown in Appendix 3.

- 6.3.2 Engine Intermix. Engine intermix operations (e.g., Pratt & Whitney JT9D with different levels of rated thrust) are acceptable. If engine intermix limits and performance are clearly addressed (Vmcg, airport analysis, 14 CFR § 121.189 obstacle clearance, etc...), and this information is readily available to the flight crew and easily interpreted, then Level A/A/A is acceptable.
- 6.3.3 Fleets with Different Engine Types. Mixed-flying of either B767 or B757 variants with different engine types (e.g., B767 fleets with PW JT9D, GE CF6, PW4000, or RR RB211 engines, or B757 fleets with RB211 and PW 2000 engines) may require additional training. Although not explicitly addressed by MDRs, a minimum Level of A/A/B is designated for such operations, unless otherwise approved by the FSB (See paragraph 10.2).
- 6.3.4 Passenger, Combi, and Freighter Variants. Within the same series (e.g., B757-200 and B757-200PF) or different series (e.g., B767-300 and B757-200PF), passenger, combi, and freighter variants may require MDR footnote limitations (e.g., A/A/B) due to differences in fire protection provisions, emergency evacuation, and other differences. Such footnotes apply to mixed flying of passenger and freighter variants. Prior to 14 CFR part 121 use of B757 or 767 "combi" variants in service, POI's must coordinate with the FSB on the use of the "designated fire fighter" training requirements. Example: The "Combi Standards for Training", mandated by

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the "Combi AD", and agreed to by the FAA, Transport Canada, and the Joint Airworthiness Authority (JAA).

6.3.5 Extended Range (ER) Variants. Within the same variant group (e.g., B767-200 and B767-200ER) or within different model groups (e.g., B757-200 and B767-300ER), ER and non-ER variants may require MDR table "footnote" limitations (A/A/B) due to cargo fire protection, electrical system, and other differences. Such footnotes apply to mixed flying of ER and non-ER variants.

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6.3.6 FMS Training (As It Relates to Differences Programs). A broad range of FMS software versions are available to operators. These include everything from the earliest generation 100k system to the PIP and Pegasus systems. In evaluating these improvements the FSB has concluded that while the optimum level of training, checking and currency would be achieved at B/A/B (or higher) when transitioning from the earlier 100k and 200k systems to PIP or Pegasus, such differences can also be satisfactorily addressed at A/A/B. In the latter case, however, level-A training assumes that all crewmembers receive a comprehensive and detailed handout outlining all pertinent differences.

#### 6.4 Recurrent Training

- 6.4.1 Recurrent Training, 14 CFR § 121.427. Recurrent training must include appropriate training in accordance with 14 CFR § 121.427, or an approved AQP program, for each variant group (e.g., B757 and/or B767). When recurrent training addresses more than one variant group, the differences must be covered in accordance with the items and levels specified by MDR and ODR tables for initial differences training, unless otherwise approved by the FSB.
- 6.4.2 Recurrent Ground Training Time Reductions. If recurrent ground training is reduced below programmed hours required in 14 CFR § 121.427(c), in accordance with 14 CFR § 121.405, such reductions must be consistent with MDR and ODR table provisions.
- 6.4.3 Recurrent Flight Training. Recurrent flight training requires appropriate maneuvers and procedures identified in 14 CFR part 121 or an approved AQP program, for either variant group (e.g., B757 or B767). Appropriate emphasis should be placed on systems and procedures that may not have been used operationally, and are expected to be used prior to the next recurrent training event. As permitted by 14 CFR § 121.427(d)(1)(ii), satisfactory completion of a proficiency check, in accordance with 14 CFR part 121 Appendix F, may be substituted for training. When ODR table provisions identify differences in maneuvers or procedures between variants, such differences must be addressed in the operators' recurrent program.
- 6.4.4 Recurrent Training Level Adjustments. The FSB will consider proposals to establish recurrent differences training at levels other than for the initial differences training on a case by case basis. Requests for changes should be made to the FSB through the POI. If the FSB accepts different levels for recurrent training, and AFS-200 approves those changes, such provisions will be identified in amended MDR footnotes.

#### 6.5 Other Training

- 6.5.1 LOFT Programs, 14 CFR § 121.409(b)(3). When operators have LOFT programs, POIs should review those programs to assure their suitability for the variants flown. If simulators used for LOFT have differences from the variants actually flown, LOFT credits may be reduced or eliminated if such differences are determined to have a significant adverse effect on the effectiveness of LOFT.
- 6.5.2 Flight Navigator, 14 CFR § 121.420. Flight Navigator initial and transition ground training is not applicable to a B757 or B767 aircraft.
- 6.5.3 Flight Attendants, Initial and Transition Ground Training, 14 CFR § 121.421. Due to differences in cabin configuration, flight attendants should be separately qualified in B757 and B767 aircraft. Such qualification, however, may be conducted concurrently when qualification is for both B757 and B767 aircraft. Credit is permitted for common subjects.
- 6.5.4 Aircraft Dispatchers, Initial and Transition, 14 CFR §§ 121.422 and 121.427. Dispatchers may be simultaneously qualified for B757 and B767 aircraft. Provisions of 14 CFR § 121.422(a)(2) are applicable to each variant. If some variants have ER capability and are used in ER operations, dispatchers must be suitably qualified to address ER issues. Dispatchers must also be suitably trained to address any (all) differences in variants related to ER performance, procedures, or limitations.

#### 7. FSB SPECIFICATIONS FOR CHECKING

#### 7.1 General.

- 7.1.1 Checking Items. Knowledge, procedures, and maneuvers specified by 14 CFR part 61, 14 CFR part 121 Appendix F, FAA Order 8900.1, FAA Practical Test Standards (PTS) or 14 CFR part 121 subpart Y, pertinent to multi-engine turbojet transport aircraft apply to all B757 and B767 variants. Except as otherwise specified in this report, demonstration of checking items need only be accomplished in either a B757 or a B767 to qualify in both the B757 and B767.
- 7.1.2 Areas of Emphasis. The following areas of emphasis should be addressed during checks as necessary:
  - a) Proficiency with manual and automatic flight must be demonstrated,
  - b) Proper outside visual scans without prolonged fixation on FMS operation should be demonstrated, and failure of component(s) of the FMS should be addressed,
  - c) Proper selection and use of map displays, raw data, flight director, and AFDS should be demonstrated, particularly during instrument approaches,
  - d) Demonstrations of FMS/GPS navigation (departures and approaches) proficiency if these type operations are approved for the operator, and

- e) Where appropriate, demonstration of proficiency as it relates to ETOPS, RNP, RVSM, EGPWS, PWS, or other specialized operations or equipment. These specialized operations/equipment are addressed in the revised MDR Table (Appendix 1) and should be reflected in individually approved operator ODR's.
- 7.1.3 No-Flap Landings. Demonstration of No-Flap or Abnormal Flap approaches and/or landings should be IAW 14 CFR parts 61 and 121 Appendix F. No Flap/No Slat approaches are not required for B757 and B767 variants if flap non-normal procedures are addressed (see paragraph 3.1.4.1).

#### 7.1.4 MMEL/MEL Use

Dispatch relief under the provisions of the Operator's MEL should receive appropriate emphasis as part of the normal checking process in order to address those issues related to crew workload and safety. Since an individual operator may elect to take advantage of the full range of relief provided under the MMEL, CHDOs should closely review specific MEL proposals to ensure that training and checking are sufficient to ensure satisfactory crew performance in both the normal and non-normal flight regimes. MEL relief should be granted only where it can be confirmed that safety will not be compromised as a function of crew experience, qualifications and training. Special attention should be given to checking to ensure that adequate training is provided to address dispatch with systems operated in alternate/degraded modes. Training and checking should also emphasize the crewmember's ability to cope with the subsequent airborne failure of the next most critical system failure, e.g., failure of one or more features of the autoflight system.

### 7.2 Type Ratings.

- 7.2.1 Oral and Written Tests. Oral, or oral and written tests apply in common to both B757 and B767 variant groups unless otherwise specified by ODR tables. When an airman is qualifying in only a B757 or B767, oral or practical test items need only address the variant for which the test is being conducted. When initial or transition training includes differences training on one or more B757 and/or 767 variant, oral and/or written testing should address these differences.
- 7.2.2 Practical Test. Airmen may complete the necessary type rating practical test of 14 CFR § 61, 14 CFR part 121 Appendix F, FAA Order 8900.1, FAA Practical Test Standards (PTS) or part 121, subpart Y, in either B757 or B767 variant groups for issuance of a B757 and B767 pilot type ratings. Sections of ATA Exemption No. 4416 (as amended), relating to "interior/exterior visual preflight inspections", do not apply to B757 and 767 mixed fleet operations. Due to the multitude of interior/exterior dissimilarities, training and checking must be accomplished on both a B757 and B767 aircraft. This may be accomplished by pictorial means.

When possible, a practical test for an applicant not employed under 14 CFR part 121 (e.g., issuance of a type rating under 14 CFR part 61 or 14 CFR part 142) should be conducted in a variant of the same group as the variant intended to be flown (e.g., test conducted using a B757-200 variant for an applicant intending to fly a B757-200). In the event this is not possible or practical, or where a B757 and B767 Type Ratings are sought and no specific B757 or B767 operation is planned or intended, the test may be conducted using any B757 or B767 variant. In this instance, and following a successful evaluation, the applicant should be advised of the

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requirement to complete subsequent differences training if other B757 or B767 variants are to be flown.

- 7.2.3 Application For and Issuance Of Type Ratings. Airmen completing pertinent 14 CFR part 61 requirements in either a B757 or B767 in accordance with FSB requirements described in this report, may apply to FAA for the appropriate B757 B767 type rating endorsement. Upon completion of required tests, and submission of an application (FAA Form 8710-1, Airman Certification and/or Rating Application), authorized FAA inspectors or designees, may issue the necessary pilot certificate with type rating.
- 7.3 Proficiency Checks.
- 7.3.1 General. Proficiency checks are administered as designated in 14 CFR § 61.58, 14 CFR § 121.441, 14 CFR part 121 Appendix F, 14 CFR part 121 Appendix H, or IAW an approved AQP program, for either the B757 or B767 variants, except as specified or permitted by MDR and ODR tables. A proficiency check in either a B757 or B767 suffices for the other variant group if initial and recurrent qualification is conducted IAW MDRs and approved ODR tables for that operator. Such checks should assess knowledge and acceptable levels of skill, considering variants flown and crew position. When checks are conducted for simultaneous common B757 and B767 qualification, one aircraft is typically selected as the basic variant, and a sufficient number of questions on the other variant are covered to ensure effectiveness of differences preparation. The preflight and equipment examination portion of initial and recurrent proficiency checks should address each variant of the B757 and/or B767 being operated by the flight crewmember. Satisfactory completion of a proficiency check may be substituted for recurrent flight training as permitted in 14 CFR § 121.433(c).
- 7.3.2 Alternating B757 and B767 Proficiency Checks. For mixed-fleet flying between B757 and B767 variant groups, Proficiency Checks should alternate for PICs and other flight crewmembers. When alternating checks are accomplished, differences need not be addressed.
- 7.3.2.1 Alternating B757, B767, and B767-400ER Proficiency Checks. For mixed-fleet flying between B757 and B767-classic flight deck configured variant groups and the B767-400ER PFD/ND configured variant, Proficiency Checks should alternate for PICs and other flight crewmembers between all variants to be mixed-fleet flown. Example A: An airman scheduled or otherwise intending to mixed-fleet fly B757-200 and B767-400ER variants should accomplish proficiency check events in a B757-200 aircraft or approved simulator and a B767-400ER aircraft or approved simulator on an alternating basis. Example B: An airman scheduled or otherwise intending to mixed-fleet fly B757-200, B767-200-300, and B767-400ER variants should accomplish proficiency check events at every other proficiency check interval in a B767-400ER aircraft or approved simulator, e. g., January 2000 event is accomplished in a B767-400ER aircraft or approved simulator, June 2000 event is accomplished in a B767-400ER aircraft or approved simulator, November 2000 event is accomplished in a B757-200 aircraft or approved simulator, April 2001 event is accomplished in a B767-400ER aircraft or approved simulator, etc. Where alternating checks include the B767-400ER, differences need not be addressed.
- 7.3.2.2 Alternating B757 CFD, B767 CFD and B757ADV, B767ADV Proficiency Checks. For mixed fleet flying with both CFD and ADV flight deck configured variant groups, proficiency checks should alternate for PICs and other flight crewmembers between all variants to be flown.

Example A: An airman scheduled or otherwise intending to mixed-fleet fly B757-200ADV aircraft and B767 CFD variants should accomplish proficiency check events in a B757-200ADV aircraft or approved simulator and a B767 CFD aircraft or approved simulator on an alternating basis.

- 7.3.2.2 Alternating B757ADV and B767LDS Proficiency Checks. For mixed fleet flying with both ADV and LDS flight deck configured variant groups, proficiency checks should alternate for PICs and other flight crewmembers between all variants to be flown. Example A: An airman scheduled or otherwise intending to mixed-fleet fly B757-200ADV aircraft and B767 LDS variants should accomplish proficiency check events in a B757-200ADV aircraft or approved simulator and a B767 LDS aircraft or approved simulator on an alternating basis.
- 7.3.3 14 CFR § 61.58 Proficiency Checks (Not Pertaining to 14 CFR part 121). Proficiency checks which may be required IAW 14 CFR § 61.58 but do not pertain to part 121 operations, should be administered using the same variant as the variant intended to be flown (e.g., an airman intending to fly a B757-200 should take a proficiency check in a B757-200 aircraft or simulator).
- 7.4 Other Checks.

MDRs for the B757 and B767 do not specify or require other checks for differences.

7.5 Line Checks, 14 CFR § 121.440.

Line checks completed for either a B757 or B767 may satisfy requirements for both aircraft. However, for incidental reasons separate line checks may be appropriate, such as for initial oceanic operations, 14 CFR § 121.445 "special routes or airports", or other factors which may be unique to either B757 or B767 variant groups for that operator.

- 7.6 Operating Experience (AC 120-53 or 14 CFR § 121.434).
- 7.6.1 B757 and B767 Classic Flight Deck Operating Experience. Unless otherwise specified by ODR tables, Operating Experience (OE) required by 14 CFR § 121.434 applies jointly to B757 and B767 variant groups configured with the classic flight deck configuration. OE completed in one group does not have to be repeated in the other group. However, for mixed fleet operations of the B757 and B767 model groups with the classic flight deck configuration, at least one of the following must be conducted:
  - a) One leg of OE must be conducted with a Check Airman in each aircraft type, B757 or B767, or
  - b) One leg of Supervised Line Flying (SLF) must be conducted with a Check Airman, who is Qualified and Current in the Variant on which SLF is being conducted.
  - c) Deleted, Rev. 3

- 7.6.2 B757-200ADV/B767-200ADV/-300ADV/-300LDS/-400ER PFD/ND Flight Deck Checking and Operating Experience. These provisions do not preclude applicability of separate requirements, which otherwise may be necessary, such as for compliance with 14 CFR § 121.445 regarding operations in special areas or to special airports.
- 7.6.2.1 Unless otherwise specified by ODR tables, OE required by 14 CFR § 121.434 applies to the B767-400ER variant with the PFD/ND flight deck configuration. Prior to OE/SLF at least one of the following checks must be conducted upon successful completion of an approved B757, B767-Classic to B767-400ER PFD/ND Differences Training course:
  - a) a dedicated 1.5-hour Partial Proficiency Check (PPC); or
  - b) a 4-hour Line-Oriented Flight Training (LOFT) session in which the events of the PPC are embedded and evaluated during the LOFT session.

The number of SLF segments recommended is a function of the training option selected by the operator and the fidelity of the training device(s), (e. g., Level-6 FTD with no visual, Level-C Simulator with full visual, etc.) in which the B767-400ER Differences Training and Checking events are conducted. These options are highlighted in Appendix 7. The Seattle AEG should be consulted for specifics and sample B767-400ER Differences Training curriculum options.

# An approved B767-400ER Check Airman must evaluate either event a) or b) above, or a minimum of one segment of SLF.

- 7.6.2.2 Checking and operating experience requirements of 7.6.2.1 a) & b) above may be met in the B757ADV and B767ADV by;
  - a) completion of at least 4.0 hours of Appendix 3 ground training requirements which include an interactive Flat Panel Display Tutorial and test, and
  - b) a minimum of 2 SLF segments and a line check.

# An approved B757ADV/B767ADV Check Airman must evaluate a minimum of two segments of SLF.

- 7.6.3 B757 CFD, B767 CFD and B757ADV, B767ADV or B767 LDS Operating Experience. Unless otherwise specified by ODR tables, OE required by 14 CFR § 121.434 applies to mixed fleet flying with both CFD and ADV or LDS flight deck configured variant groups. The following must be conducted upon successful completion of an approved differences training course (reference Appendix 3):
  - a) A minimum of 2 OE/SLF segments.

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7.7 Authorized FAA Inspectors or Check Airmen.

For the purposes of airmen certification, FAA inspectors, Aircrew Program Designees (APDs), or check airmen should have completed appropriate qualification for the variant(s) to be flown. Unless otherwise specified by FAA, airmen certification for the B757 or B767 should be conducted by individuals qualified in the respective variant group. Check airmen assigned to the B757, B767, or both, for purposes of supervision of OE under 14 CFR § 121.434, should have completed at least 2 flight segments or 2 takeoffs and landings in the respective variant group(s) for which they will serve as check airman (e.g. B757 or B767).

#### 8. FSB SPECIFICATIONS FOR CURRENCY

- 8.1 Currency (Recent Experience) 14 CFR § 121.439.
- 8.1.1 <u>Currency Required</u>. Unless approved in ODR tables, currency is addressed separately for B757 and B767 variant groups. For programs approved through ODR tables, currency is specified in accordance with the MDRs.
  - a) Acceptable Means of Compliance with 14 CFR § 121.439 (a).
    - (1) Pilots that are dual qualified and maintaining duel currency in the B777 and the B757,B767 may satisfy the provisions of 14 CFR § 121.439 (a) by accomplishing three takeoffs and landings in either aircraft each 90 days.
    - (2) Pilots who are dual qualified and maintaining dual currency in the B737 and the B757, B767 may satisfy the provisions of 14 CFR § 121.439 (a) by accomplishing three takeoffs and landings in either aircraft each 90 days.

Note: To reestablish takeoff and landing currency, the requirements of 14 CFR § 121.439 must be complied with, except that at least one takeoff and landing must be accomplished in each type of aircraft or an advanced simulator approved for the takeoff and landing maneuvers. For clarity, the B757 and B767 are separate types, but treated equivalent for takeoff and landing currency.

- b) Airman Experience (Prerequisite). Provisions within this section of the report apply to training programs for experienced flight crew members who have previous experience in both 14 CFR part 121 air carrier operations and multi-engine wide body heavy transport turbojet aircraft. Flight crews not having prerequisite experience shall not use the provisions of this section. In addition, the following pre-qualification requirements must be met by all flight crew participating in the landing currency provisions prescribed in this section.
  - (1) Three (3) months of previous line operations experience in both aircraft within each pairing (B777 and B757,B767) or (B737 and B757, B767), including OE in each of the paired aircraft.
  - (2) A minimum of 150 hours of line experience in both aircraft within each pairing (B777 and B757,B767) or (B737 and B757, B767).

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- (3) Requirements (1) and (2) above must be met while serving in a primary crew position.
- 8.1.2 Landing Currency. 14 CFR § 121.439(a) requires a 90 day recency of experience for landings in the type airplane. All B757 variants are the same type and all B767 variants are the same type. Accordingly, three landings in a 90-day period in any B757 or B767 model variant is considered acceptable for meeting landing currency provisions on all B757 and B767 models.
- 8.1.3 Segment Currency Between Various Combinations of B757ADV, B767ADV, B767-400ER and B757, B767 CFD and B767 LDS. B757 and B767 CFD configured airplanes do not require segment currency (e.g., mixed fleet flying/MFF). Segment currency for the B757-200ADV, B767-200ADV, B767-300ADV, or B767-400ER and B757, B767 CFDs requires that a minimum of two segments be flown in any ADV model or B767-400ER and two in either the B757 or B767 CFD configured aircraft during a 90 day period (e.g., MFF). Segment currency for the B757-200ADV and B767-300 LDS requires that a minimum of two segments be flown in each aircraft during a 90 day period. Segment requirements may be increased by the CMO if mission and operational procedures are assessed to be different (e.g., oceanic, polar, ETOPS, etc. vs. short haul domestic routes/operations).

#### B757 AND B767 CFD CONFIGURED AIRCRAFT ONLY

AIRCRAFT TYPES	CURRENCY
	REQUIREMENTS (90 DAYS)
B757-200, -200PF, -200ER, -300, B767-200, -200ER, -300, -300ER, -300ERF, -300ERGMF (CFD)	TAKEOFFS AND LANDINGS: A MINIMUM OF THREE (3) IN ANY OF THE AIRCRAFT LISTED.
←	$\Rightarrow$

# <u>B757 AND B767 CFD and B757-200ADV, B767-200ADV, -300ADV B767-400ER PFD/ND</u> and B767-300 LDS CONFIGURED AIRCRAFT

AIRCRAFT TYPES	CURRENCY REQUIREMENTS (90 DAYS)
B757-200, -200PF, -200ER, -300, B767-200, -200ER, -300, -300ER, -300ERF -300ERGMF (CFD) and B757-200ADV, B767- 200ADV, -300ADV, B767-400ER (PFD/ND) and B767-300 LDS	<ul> <li>TAKEOFFS AND LANDINGS: A MINIMUM OF THREE (3) IN ANY OF THE AIRCRAFT LISTED, AND</li> <li>SEGMENTS: A MINIMUM OF TWO (2) SEGMENTS IN ANY CFD CONFIGURED AIRCRAFT AND TWO IN THE B767-200ADV/-300ADV/-400ER, B757-200ADV. MINIMUM OF TWO (2) SEGMENTS IN B757ADV AND TWO IN THE B767-300 LDS.</li> </ul>

- 8.1.4 Segment Currency between the B737 and B757, 767 (for the purposes of CTLC). Segment Currency between the B737 and B757, 767 requires that a minimum of two segments be flown in any B737 and two in any B757, 767 during a 90 day period. Segment requirements may be increased by the CMO if mission and operational procedures are assessed to be different (e.g. oceanic, polar, ETOPS, etc. vs. short haul domestic routes/operations).
- 8.1.5 Segment Definition. For the purposes of this report, a segment consists of the following flight phases or maneuvers: preflight, start, takeoff, climb, cruise, descent, approach, landing and shutdown. Credit for a segment requires that a crewmember serve in an appropriate cockpit crew position (left or right pilot seat) during the necessary flight phases or maneuvers, but does not require the crewmember to physically control the aircraft or autopilot during those maneuvers. For example, both pilots may take credit for a segment even though only one actually controls the aircraft during takeoff and landing. Credit for the cruise phase is achieved by serving in a crew position during any part of cruise. It is not necessary to serve in a crew position for the entire cruise time, since long range flights may require crew relief. Pilots may not take credit for a segment by observation from a jumpseat, or by serving in a relief capacity during the cruise phase of flight only, regardless of flight time accrued in cruise. Cumulative completion of a segment is permitted. A segment may be completed in one flight or by cumulatively completing the necessary phases and maneuvers in more than one flight. For example, a takeoff, departure and initial cruise may be performed on one long range flight, and descent, approach and landing on the next, allowing credit for a single segment. This would be possible provided an acceptable means of tracking these events is used. Note: Segments may also be completed in an approved simulator utilizing an approved LOFT scenario.

- 8.1.6 <u>Level B Currency Compliance</u>. A variety of means for establishing compliance with Level B currency provisions are acceptable (as provided in AC 120-53). Examples include the following:
  - a) Issuance of a bulletin which directs crews to review particular operating manual differences information if a particular variant has not been flown within a specified time interval (e.g. review of differences in limitations and procedures, etc.);
  - b) Crew certification on a dispatch/flight release that they have reviewed pertinent information for the particular variant to be flown on that trip, within an operator specified time interval;
  - c) Explicit tracking of currency requirements based on logbook entries, ACARS data, or other reliable administrative records; or,
  - d) Recurrent training/checking which addresses the features of each pertinent variant group during each training or checking event.
- 8.1.7 <u>Level C Currency Compliance</u>. A variety of means for establishing compliance with Level C currency provisions are acceptable (as provided in AC 120-53). Examples include the following:
  - a) Crew scheduling practices which result in a crewmember being scheduled to fly a particular variant;
  - b) Tracking of an individual crewmember's flying of variants to ensure currency;
  - c) Use of higher level currency (level D or E); or
  - d) Recurrent training/checking which addresses the features of each pertinent variant group during each training or checking event.

#### 8.1.8 Re-Establishing Currency.

- <u>a)</u> Level B Currency. Can be re-established by crewmember review of pertinent materials per the operator's guidelines. However, for mixed flying of B757 and B767 variant groups with the classic flight deck configuration, if a period greater than 6 months has elapsed for PICs or 12 months for SICs without flying both a B757 and B767, then differences re-qualification is necessary. If a period of 12 months has elapsed for PICs or 18 months for SICs without flying a B757-200ADV, B767-200ADV, or B767-300ADV or B767-300LDS flight deck configured airplane, then differences re-qualification is necessary. Differences re-qualification is accomplished for the respective PIC or SIC by:
  - (1) Satisfying the same MDRs and ODRs as for initial differences qualification.
  - (2) Completing an approved recurrent training course or proficiency check which meets the provisions of paragraph 6.4 or 7.3 of this report.

- b) <u>Level C Currency</u>. Can be re-established by: completing required items using a device equal to or higher than that specified for level C differences training and checking; flight with an appropriately qualified check airman; completion of proficiency training or proficiency check. In the case of noncurrent SICs, a properly qualified and designated PIC may be authorized to accompany an SIC to re-establish currency. However, if a period of 12 months has elapsed for PICs or 18 months for SICs without flying a -400ER PFD/ND flight deck configured airplane, then differences re-qualification is necessary. Differences re-qualification is accomplished for the respective PIC or SIC by:
  - (1) Satisfying the same MDRs and ODRs as for initial differences qualification.
  - (2) Completing an approved recurrent training course or proficiency check which meets the provisions of paragraph 6.4 or 7.3 of this report.
- c) <u>Segment Currency.</u> If the time limits for required differences re-qualification listed above in paragraphs 8.1.8 a) or 8.1.8 b) are not exceeded, then segment currency can be reestablished by successful completion of one (1) SLF segment in the appropriate variant or type.

#### 9. AIRCRAFT COMPLIANCE CHECKLIST

9.1 Compliance Checklist (see Appendix 4).

Compliance checklists are provided as an aid to FAA Certificate Holding District Offices (CHDOs) to identify those specific rules or policies for which compliance has already been demonstrated to FAA for a particular type, variant, or variant group. The checklist also notes rules or policies which remain to be demonstrated to CHDOs by operators. Not all rules or policies or variants are necessarily listed or addressed. When differences exist between the variant(s) evaluated with the compliance checklist and variant(s) used by an operator, the CHDO evaluates those differences and approves use of the variant if that variant provides equivalent compliance with 14 CFR or FAA policies. It remains the responsibility of a Certificate Holding District Office to review compliance with pertinent rules or policies not already satisfactorily addressed in the compliance checklist, prior to 14 CFR part 121 approval of an operator for use of particular B757 or B767 variants. Note: These references were accurate as initially published. Some references may have changed.

- 9.2 Discussion of Specific Compliance Checklist Items
- 9.2.1 B767 Observer Seat. On B767 variants with two observer seats installed, one or both seats may satisfy the requirements of 14 CFR § 121.581. Either seat may be used by FAA inspectors at their discretion.
- 9.2.2 B757 Observer Seat. The left observer seat on the B757 satisfies the requirements of 14 CFR § 121.581. On B757 variants with two observer seats installed, either seat may be used by FAA inspectors at their discretion.

#### 9.2.3 Emergency Evacuation.

- a) The B757-200 and B767-200 have successfully been demonstrated by simulated emergency evacuations credited under 14 § CFR 121.291 for configurations and passenger capacities specified in FAA Order 8900.1 Volume 3, Chapter 30, Section 9. Accordingly, a 14 CFR § 121.291 full scale evacuation is not necessary for aircraft configurations consistent with previously approved tests. Passenger capacity less than or equal to the previously demonstrated capacity may be authorized. A mini-evacuation is required unless the particular certificate holder has previously operated a B757 or B767 variant with the same or similar interior and exit configuration.
- b) B767-300. The B767-300 was successfully demonstrated by simulated emergency evacuation credited under 14 CFR § 121.291 in April 1996, up to and including a maximum passenger capacity of 351. Accordingly, a 14 CFR § 121.291 full scale evacuation is not necessary for aircraft configurations consistent with the above test. Passenger capacities less than or equal to the above (351) demonstrated capacity may be authorized. A mini (or partial) evacuation may be required per the provisions of 14 CFR § 121.291 and FAA Order 8900.1. Copies of the B767-300 full-scale emergency evacuation test plan are available upon request through the FSB or Seattle Aircraft Evaluation Group.
- c) B757-300 and B767-400ER. The B757-300 and B767-400ER were certified using evacuation analysis data (and for the 757-300, a simulated partial overwing emergency evacuation demonstration). Appendix B of the B757-300 analysis document, titled "Flight Attendant Procedures, Land Evacuation Guidelines B757-300 with Standard Exit Arrangement (Single lane slides at Door 2)" is included in this FSB report, Appendix 6. The appendix includes evacuation procedures and techniques that must be included in an airline(s) Flight Attendant Training Program. A mini (partial) evacuation may be required per the provisions of 14 CFR 1§ 21.291 and FAA Order 8900.1.
- 9.2.4 Proving Runs, 14 CFR § 121.163. Initial 14 CFR part 121 proving runs in accordance with provisions of 14 CFR § 121.163 (a) for the B757-200, B767-200, and B767-300 variants are completed. Further demonstration under 14 CFR § 121.163 (a) is not necessary.

For B757 or B767 variants new to an operator. Proving in accordance with 14 CFR § 121.163 b) is appropriate in accordance with FAA Order 8900.1 for the B757 and B767. Credit in the form of proving run time reductions may be given for previous B757 or B767 experience with that operator, when such previous experience is directly applicable. For example, when B757s are introduced by an operator already having B767 domestic operations, significant credit for the B767 experience may be permitted. Conversely, if characteristics of the new operation are different, as with introduction of B767s for oceanic/ER operations by an air carrier having only domestic B757 experience, less route proving credit may be appropriate. Proving run requirements and reductions are as designated by FAA Order 8900.1 and the CHDO, or as otherwise specified by the FSB or AFS-200.

#### 10. FSB SPECIFICATIONS FOR DEVICES AND SIMULATORS

- 10.1 Standard Devices and Simulators. Device and Simulator characteristics pertinent to B757 and B767 variants are as designated in AC 120-53, except as described below.
- 10.2 Special Requirements. Special device or simulator characteristics are described for training, checking, and re-establishing currency as follows:
  - a) Except as described below, either B757 or B767 simulators or devices (Fixed Base Simulator, Full Flight Simulator, etc.) may be used to satisfy requirements for either a B757 or B767 with the classic flight deck configuration for training, checking, or currency;
  - b) All B767-400ER PFD/ND Differences Training must be accomplished in an approved B767-400ER PFD/ND simulator or training device (Flight Training Device, Full Flight Simulator, etc.). The approved minimum training device found acceptable by the FSB for B767-400ER training is a Level 6 FTD;
  - c) All B757-200ADV/B767-200ADV/-300ADV/-300 LDS Differences Training must be accomplished in a classroom using a combination of; standup instruction, handouts, slide presentations, and/or CBT. An appropriately configured FTD or FFS may be used in lieu of the CBT;
  - d) When different EICAS engine display formats are used, due to operation with different engine types (B767 GE, CF6, PW and B757 RR, PW), in addition to simulator training on one variant, crews should be exposed to the alternate EICAS presentations by some means (e.g. photos, drawings, etc.) adequate to assure proper display interpretation and use (See paragraph 6.3.3); and
  - e) When a mix of variants is operated, the combination of devices and simulators should adequately address those training requirements which might result from differences in skills applicable to optional equipment which may differ between variants.
- 10.3 Devices Used for Recurrent Proficiency Checks. Recurrent checking may be accomplished in either B757 or B767 simulators. However, recurrent proficiency checks are to be accomplished in relevant B757 or B767 simulators or combinations of simulators as suited to the particular operator's fleet, fleet mix, types of operations, and approved training program. For example, if crews predominantly or exclusively operate extended range oceanic flights in a B767, it would be expected that checks (and LOFT scenarios if used), even though in a B757, would address the thrust to weight characteristics, non-normal planning and decision making, and include a discussion of systems configurations typical of those operations. Even though the pilot type ratings are in common, in this situation exclusive or predominant use of non-ER configured simulators, using typical weights and scenarios for domestic operations would only be considered an acceptable recurrent checking program when some means is provided to determine proficiency in the unique areas. In those instances where the B767-400ER is included in an operator's fleet, PC's should be addressed separately/independently and only in simulators approved for this purpose. Checking and simulator use proposals where simulators do not

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closely match the variants to be flown are evaluated on a case by case basis by the POI, in consultation with the National Simulator Evaluation Team and the FSB. A POI, FAA inspectors, designated examiners, or check airmen may require demonstration of competency in a simulator or the aircraft representing the variant to be flown, when doubt exists regarding training program adequacy, or an airman's preparation or competency.

#### 11. APPLICATION OF FSB REPORT

- 11.1 Operators of B757 or B767 Aircraft Without Differences. Relevant parts of this report (e.g. Type Rating Designation, checking maneuvers, etc.,) are effective when the report is approved by FAA. Sections or paragraphs of this report related to differences (e.g. MDRs, ODRs, etc.) may be voluntarily applied to facilitate transition programs, when approved by the FAA.
- 11.2 Mixed-Flying of Either B757 or B767 Variants. For operators mixed-flying more than one B757 or B767 variant (e.g., B767-200s and B767-300ERs), provisions of item 11.1 apply, as described above, and in addition compliance with relevant FSB report differences provisions is necessary within a period of 12 months from the date of issuance of this report (e.g. have operator specific ODR tables approved by FAA), or obtain alternate compliance. It should be noted that FAA review and approval of programs, devices, training methods, and other items requires a reasonable period of time, and that many B757 or B767 operators may need to apply for approval under the provisions of AC 120-53. Accordingly, operators should plan to submit proposed ODR tables to POIs within 10 months of issuance of this report issuance in order to assure timely review and approval.
- 11.3 Operators of B757s and B767s in Mixed Fleets. For Mixed-Fleet-Flying of B757s and B767s, unless otherwise approved, operators must be in accordance with relevant provisions of this report, including approved MDR and ODR tables. This includes items in 11.1 and 11.2 above. It is recognized that a time period may be required for operator specific ODR table preparation, device approvals, bulletin issuance, etc. to establish compliance. Accordingly, when ODR tables describing compliance methods for an operator are approved by FAA, interim programs or interim extension of present programs may be made until a mutually agreed compliance date. In any event, compliance must be within 12 months from the date of approval of the FSB report.

#### 12. ALTERNATE MEANS OF COMPLIANCE

- 12.1 Approval Level and Approval Criteria. Alternate means of compliance to differences requirements of 14 CFR part 121 Subpart N and O for B757 or B767 variants, other than as specified in provisions of this report, must be approved by AFS-200. If Alternate compliance is sought, operators will be required to establish that proposed alternate means provide an equivalent level of safety to the provisions of AC 120-53 and this FSB report. Analysis, demonstrations, proof of concept testing, differences documentation, or other evidence may be required.
- 12.2 Requires Equivalent Safety. In the event alternate compliance is sought, training program hour reductions, simulator approvals, and device approvals, may be significantly limited and reporting requirements may be increased to assure equivalent safety. FAA will generally not

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consider relief through alternate compliance means unless sufficient lead time has been planned by an operator to allow for any necessary testing and evaluation.

12.3 Unforeseen Circumstances. In the event of clearly unforeseen circumstances in which it is not possible for an operator to comply with MDR provisions, the operators may seek an interim equivalent program rather than a permanent alternate compliance method. Financial arrangements, schedule adjustment, and other such reasons are not considered "unforeseen circumstances" for the purposes of this provision.

#### 13. MISCELLANEOUS - RESERVED

#### APPENDIX 1

# MASTER DIFFERENCE REQUIREMENTS - B757/B767

## MASTER DIFFERENCE REQUIREMENTS TABLE

				FROM AIRPLANE						
	Airplane Type Rating B757 B767	B757-200	B757-200PF	B757-300	B767-200	B767-300	B767-300F	B767-300GMF	B767- 400ER	
	B757-200		B*/A/B	A/A/B	B*/A/B	B*/A/B	B*/A/B	B*/A/B	(TBD)	
		(4)(5)(6)	(1)(2)(3) (4)(5)(6)	(4)(5)(6)	(1)(2)(3) (4)(5)(6)	(1)(2)(3) (4)(5)(6)	(1)(2)(3) (4)(5)(6)	(1)(2)(3) (4)(5)(6)		
Т	B757-200PF	B*/A/B		B*/A/B	B*/A/B	B*/A/B	B*/A/B	B*/A/B	(TBD)	
O		(1)(2)(3) (4)(5)(6)	(4)(5)(6)	(1)(2)(3) (4)(5)(6)(7)	(1)(2)(3) (4)(5)(6)	(1)(2)(3) (4)(5)(6)	(1)(2)(3) (4)(5)(6)	(1)(2)(3) (4)(5)(6)		
A	B757-300	A/A/B	B*/A/B		B*/A/B	B*/A/B	B*/A/B	B*/A/B	(TBD)	
R P		(4)(5)(6)	(1)(2)(3) (4)(5)(6)(7)	(4)(5)(6)	(1)(2)(3) (4)(5)(6)	(1)(2)(3) (4)(5)(6)	(1)(2)(3) (4)(5)(6)(7)	(1)(2)(3) (4)(5)(6)(7)		
L A	B767-200	B*/A/B	B*/A/B	B*/A/B		A/A/B	B*/A/B	B*/A/B	(TBD)	
N E		(1)(2)(3) (4)(5)(6)	(1)(2)(3) (4)(5)(6)	(1)(2)(3) (4)(5)(6)	(4)(5)(6)	(4)(5)(6)	(1)(2)(3) (4)(5)(6)	(1)(2)(3) (4)(5)(6)		
	B767-300	B*/A/B	B*/A/B	B*/A/B	A/A/B		B*/A/B	B*/A/B	(TBD)	
		(1)(2)(3) (4)(5)(6)	(1)(2)(3) (4)(5)(6)	(1)(2)(3) (4)(5)(6)	(4)(5)(6)	(4)(5)(6)	(1)(2)(3) (4)(5)(6)	(1)(2)(3) (4)(5)(6)		
	B767-300F	B*/A/B	B*/A/B	B*/A/B	B*/A/B	B*/A/B		A/A/B	(TBD)	
		(1)(2)(3) (4)(5)(6)(7)	(1)(2)(3) (4)(5)(6)(7)	(1)(2)(3) (4)(5)(6)(7)	(1)(2)(3) (4)(5)(6)(7)	(1)(2)(3) (4)(5)(6)(7)	(5)(6)	(5)(6)		

				FROM A	AIRPLANE			
Airplane Type Rating B757 B767	B757-200	B757-200PF	B757-300	B767-200	B767-300	B767-300F	B767-300GMF	B767- 400ER
B767- 300GMF	B*/A/B (1)(2)(3)	B*/A/B (1)(2)(3)	B*/A/B (1)(2)(3)	B*/A/B (1)(2)(3)	B*/A/B (1)(2)(3)	A/A/B (5)(6)	(5)(6)	(TBD)
	(4)(5)(6)(7)	(4)(5)(6)(7)	(4)(5)(6)(7)	(4)(5)(6)(7)	(4)(5)(6)(7)			
B767-400ER	D/C/C (5)(6)(7)(8) (9)(10)	D/C/C (5)(6)(7)(8) (9)(10)	D/C/C (5)(6)(7)(8) (9)(10)	D/C/C (5)(6)(7)(8) (9)(10)	D/C/C (5)(6)(7)(8) (9)(10)	D/C/C (5)(6)(7) (8)(9)(10)	D/C/C (5)(6)(7) (8)(9)(10)	N/A

#### NOTES:

- (1) B\* Training may be accomplished via a home study course which can be demonstrated to the POI to produce results equivalent to a formal (e.g. Classroom, CBT) academic training course. A means must be included for the crewmember to certify that they have complied with the required training and fully understand the differences between variants flown (Written Test, etc).
- (2) Training in general is set at Level B, and assumes that crewmembers receive exposure to operation of door/emergency exits on static aircraft or other suitable means. If this is not accomplished, then C/A/B applies, where C is based on an ODR specific item for emergency equipment/doors.
- (3) B/A/B is based on equivalent operating policies for both aircraft. If policies differ (e.g. only one variant is used for single engine taxi, Cat III fail passive operations, etc.), then Level C/A/B may be needed to address specified maneuvers identified by ODR tables.
- (4) Additional training/checking/currency requirements may exist (B/A/B) for mixed flying of ER and Non-ER airplanes due to system and operational differences.
- (5) Installation of FANS/DATA LINK/RNP requires additional training, checking and currency as specified in MDR table.
- (6) Predictive windshear (PWS) training, checking and currency has been assessed by the FSB at B/B/B. Enhanced ground proximity warning system (EGPWS) training, checking and currency has also been assessed at B/B/B.
- (7) Training on emergency egress and emergency equipment is required.
- (8) Level-D training requirements may be satisfied by an approved training curriculum consistent with the provisions of this FSB Report and accomplished in a minimum Level-6 Flight Training Device (FTD). Reductions in the number of SLF legs may be authorized if Full Flight Simulator is used to conduct training.
- (9) Level-C checking involving **systems differences only** may be satisfied by "Interactive CBT". Level-C checking in a Level-6 FTD or higher requires a Partial Proficiency Check (PPC) by an FAA approved check airman.
- (10) Level-C currency for Mixed Fleet Flying (MFF) of the B767-400ER and other B757/B767 variants requires two line segments in relevant airplanes or approved simulator(s) every 90 days. If two segments cannot be accomplished in a 90 day period due to unusual circumstances, currency can be accomplished via manual reviews before flight, checklist references during flight, and a CBT with practice exercises. The intent is that two line segments are accomplished every 90 days. Therefore, accomplishing segment currency through manual review, etc. should not be used in consecutive 90 day periods. (Reference paragraph 8.1.1 of this FSB Report)

## MASTER DIFFERENCE REQUIREMENTS TABLE

(ADV and LDS)

			FROM AIRPLANE						
	Airplane Type	B767-200	B767-300	B767-300F	B767-400	B757-200	B757-	B767-	
	Rating B757 B767						200ADV	300LDS	
T O	B757 B767 B767- 200ADV	B/B/B (1)(2)(3)(4)	TBD	TBD	TBD	TBD	TBD	TBD	
A	B767- 300ADV	B/B/B (1)(2)(3)(4)	B/B/B (1)(2)(3)(4)	B/B/B (1)(2)(3)(4)	TBD	TBD	TBD	TBD	
R P L	B757- 200ADV	TBD	TBD	TBD	TBD	B/A/B (1)(2)(3)(4)	N/A	TBD	
A N E	B767-300F		Se	e previous MDR	Table		B/A/B (1)(5)(6)(7) (8)(9)(10)	TBD	
	B767-300LDS	TBD	TBD	TBD	TBD	TBD	B/A/B (1)(5)(7)(8) (9)(10)(11)	N/A	

- (1) Level-B currency for MFF between [CFD and ADV] or [ADV and LDS] flight deck configured variant groups requires two line segments in relevant airplanes or approved simulator(s) every 90 days. If two segments cannot be accomplished in a 90 day period due to unusual circumstances, currency can be accomplished via manual reviews before flight, checklist references during flight, and a CBT with practice exercises. The intent is that two line segments are accomplished every 90 days. Therefore, accomplishing segment currency through manual review, etc. should not be used in consecutive 90 day periods. (Reference paragraph 8.1.1 and 8.1.3 of this FSB Report)
- (2) Crew training will consist of an instructor-led lesson reviewing the flat panel flight instrumentation system and a Computer Based Training curriculum to include computer-based exercise that reviews the procedures and steps for flight instrument display inputs via the DCP throughout the five phases of flight (Takeoff, Climb, Cruise, Descent, and Landing).
- (3) Crew checking, as allowed by an AQP, is validation (checking) of the pilot's knowledge of flat panel display differences and is accomplished via train-to-proficiency by the instructor. Completion of initial crew training and checking will qualify a B757, B767 pilot to operate an airplane that incorporates the flat panel display system (STC ST02372CH/STC ST02165NY). Otherwise, a Partial Proficiency Check must be performed.

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- (4) Under AQP, refresher training should be accomplished every nine months. Manuals to be available for use are:
  - o Pilot's Operating Manual (or operator equivalent)
  - o Quick Reference Handbook (or operator equivalent)
  - o Minimum Equipment List
- (5) Quick Reference Card (or operator equivalent that is a checklist reference for operating the system throughout all flight phases). Crew training will consist of computer based training (CBT) curriculum to include exercises that review the procedures and steps for flight instruments display inputs via the EFIS select panel throughout the five phases of flight (Takeoff, Climb, Cruise, Descent, Landing).
- (6) Crew checking, as allowed by AQP, is validation of the pilot's knowledge of flight instrument display differences and is accomplished via train to proficiency by the instructor. Completion of initial training and checking will qualify a B757-200ADV pilot to operate a B767 CFD.
- (7) Additional training, checking, currency requirements may exist for mixed fleet flying of ER and non-ER airplanes due to system and operational differences.
- (8) Installation of FANS/DATA LINK/RNP requires additional training, checking and currency as specified in MDR tables.
- (9) Predictive Windshear (PWS) and Enhanced Ground Proximity Warning System (EGPWS) training, checking, and currency have been assessed by the FSB at B/B/B.
- (10) Training on emergency egress and emergency equipment is required.
- (11) Crew checking, as allowed by AQP, is validation of the pilot's knowledge of the display differences and is accomplished via train to proficiency by the instructor. Completion of training and checking will qualify a B757-200ADV pilot to operate a B767-300 LDS (STC ST01750WI).

## APPENDIX 2

### ACCEPTABLE ODR TABLES

(AVAILABLE ON REQUEST FROM THE SEATTLE AEG)

#### APPENDIX 3

# ACCEPTABLE DIFFERENCES TRAINING PROGRAM FOR A CLASSSIC FLIGHT DECK (CFD) MIXED B757 AND B767 FLEET

	SUBJECT OUTLINE	PROGRAMMED HOURS
A.	INTRODUCTION	0.5
B.	SYSTEMS TRAINING:	
	1. EMERGENCY EQUIPMENT (LOCATION AND OPERATION)	0.5-1.0
	2. ENVIROMENTAL SYSTEMS	0.5-1.5
	3. FUEL AND POWERPLANT SYSTEMS	1.0-1.5
	4. HYDRAULIC POWERED SYSTEMS	1.5-2.0
	5. PERFORMANCE	0.5-1.0
TO	ΓAL	4.5-7.5

NOTE: IN ADDITION TO THE ABOVE SUBJECTS, TRANING SHOULD BE GIVEN ON PREFLIGHT DIFFERENCES, INCLUDING INTERIOR AND EXTERIOR INSPECTIONS. THE REQUIRED NUMBER OF HOURS WILL BE DEPENDENT UPON THE NUMBER OF VARIANTS FLOWN BY EACH OPERATOR.

# ACCEPTABLE DIFFERENCES TRAINING PROGRAM FOR SAME MODEL AIRCRAFT (B757 or B767 except -400ER) MIXED CFD and ADV FLIGHT DECK

SUBJECT OUTLINE	PROGRAMMED HOURS
A. INTRODUCTION	0.5
B. SYSTEMS TRAINING:	
1. INSTRUMENT PANEL DESCRIPTION AND OPERATION	2.0-3.0
2. CBT AND TESTING	1.0-2.0
TOTAL	3.5-5.5

# ACCEPTABLE DIFFERENCE TRAINING PROGRAM FOR CFD, LDS AND ADV FLIGHT DECK FOR MIXED B757 AND B767 FLEET (Except -400ER) (Example: B757-200ADV and B767 CFD or B767 LDS)

SUBJECT OUTLINE	PROGRAMMED HOURS
A. INTRODUCTION	0 .5
B. SYSTEMS TRAINING:	
1. EMERGENCY EQUIPMENT	0 .5-1.0
2. ENVIRONMENTAL SYSTEMS	0 .5-1.5
3. FUEL AND POWER PLANT SYSTEMS	1.0-1.5
4. HYDRAULIC POWERED SYSTEMS	1 .5-2.0
5. PERFORMANCE	0 .5-1.0
6. INSTRUMENT PANEL	1.5-2.0
TOTAL	6 .0-9.5

## APPENDIX 4

### AIRCRAFT COMPLIANCE CHECKLIST

DATE: 9/20/00

#### **B757/B767 COMPLIANCE CHECKLIST**

This checklist applies to both the B757 and B767. Compliance with the following Regulations and FAA policies has been established, based on B767 configuration VA004 UAL-N601UA or equivalent, and B757 configuration NA201 EAL-N501EA or equivalent. Items that are identified as "CHDO" need to be evaluated by principal inspectors at the Certificate Holding District Office prior to the B757 or B767 aircraft being used in 14 CFR part 121 revenue service. Items marked "complies" have either been found to directly comply with the applicable rule, or the necessary data or procedures are available to permit assessment of compliance of a B757 or B767 for a particular operation (e.g. as for takeoff obstacle clearance assessment pertinent to 14 CFR § 121.189). Items marked NA are not applicable to B757 or B767 aircraft.

# Note: These references were accurate as initially published. Some references may have changed.

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14 CFR part 91 Section
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- 91.24 complies
- 91.27 complies
- 91.30 complies
- 91.31 complies
- 91.32 complies
- 91.33 complies, except (b) (11) CHDO
- 91.34 if applicable to operations other than 14 CFR part 121 complies, otherwise CHDO
- 91.35 complies
- 91.36 complies
- 91.37 complies
- 91.41 NA
- 91.47 complies
- 91.49 complies
- 91.51 complies, except (c) CHDO
- 91.52 NA
- 91.70 complies. For B767, speed authorization may be required by ATC for some weights and configurations during departure, arrival, and holding. CHDO
- 91.73 complies
- 91.169 CHDO
- 91.171 CHDO
- 91.172 CHDO
- 91.183 complies
- 91.191 complies
- 91.193 complies, except (b) (1) CHDO
- 91.197 complies
- 91.200 complies
- 91.203 complies
- 91.209 (b) and (c) comply

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91.303 complies; (Stage 3)

#### 14 CFR part 121 Section

121.141 (a) complies, (b) CHDO

121.157 (b) complies

121.173 (b) and (d) comply

121.189 complies

121.191 complies

121.193 NA

121.195 complies, data provided in AFM

121.197 complies, data provided in AFM

121.215 complies

121.217 complies

121.219 complies

121.221 complies, forward and aft compartments are Class C

121.223 complies

121.231 complies

121.233 complies

121.235 complies

121.237 complies

121.241 complies

121.243 complies

121.245 complies

121.247 complies

121.249 complies

121.251 complies 121.253 complies

121.255 complies

121.257 complies

121.259 complies

121.261 complies

121.263 complies

121.265 complies

121.267 complies

121.269 complies

121.273 complies

121.275 complies

121.277 complies

121.281 complies

121.289 complies

121.291 complies, except (b) through (e) CHDO

121.303 complies

121.305 complies

121.307 complies

121.308 complies

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- 121.309 complies, except (b)(1) CHDO
- 121.310 complies
- 121.311 equipment is in compliance; use and procedures per (a), (b), and (d) to be reviewed by CHDO
- 121.312 complies
- 121.313 complies, except (g) CHDO
- 121.315 complies QRH provided; amended procedures, if any, to be reviewed by the CHDO
- 121.317 complies
- 121.318 complies
- 121.319 complies
- 121.323 complies
- 121.325 complies
- 121.329 complies, except (b)(3) CHDO
- 121.333 equipment and AFM procedures are in compliance; (c)(2), (3), (4), (d), and (f) operator specific procedures, if any, to be reviewed by CHDO
- 121.335 (b) complies
- 121.337 equipment is in compliance, procedures for use in (b) and (c) to be reviewed by CHDO
- 121.339 (a) (1) (2) (b) equipment complies, (a) (3) (4) (c) and procedures to be reviewed by CHDO
- 121.340 (a) complies, (b) CHDO
- 121.341 complies
- 121.342 complies
- 121.343 (a) and (b) comply, (c) and (d) CHDO
- 121.345 complies
- 121.347 complies
- 121.349 complies, except (d) CHDO
- 121.351 (a) complies, (b) CHDO
- 121.353 CHDO
- 121.355 complies
- 121.357 complies, except (c) CHDO
- 121.359 complies, except (b) NA
- 121.360 complies, except (d) and (e) CHDO
- 121.369 CHDO
- 121.481 CHDO; For B767, as described in Note 1
- 121.483 CHDO; For B767, as described in Note 1
- 121.485 CHDO; For B767, as described in Note 1

Note 1 - FAA application of 14 CFR §§ 121.481, 121.483, and 121.485 is as follows: Flights in which 1 additional crewmember is considered acceptable are limited to 12 scheduled flight hours. Crews scheduled in excess of 12 flight hours must include at least 2 additional flight crewmembers. A PIC qualified crewmember must occupy a flight deck crew position, except during crew change or brief periods as provided for in 14 CFR § 121.543 (b)(1) or (2). Any crew sleeping quarters installed to comply with the requirements of 14 CFR § 121.485 (a) must be evaluated by FAA SEA AEG. Reference - FAA Action Notice A8430.34, 2/9/89.

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- 121.576 complies as follows: The B767 meets this requirement with delivered configuration (UAL-VA004 N601UA) or equivalent; other configurations CHDO; The B757 meets this requirement with delivered configuration (EAL-NA201 N501EA) or equivalent; other configurations CHDO.
- 121.578 Both B757 and B767 meet requirement by type design
- 121.579 compliance based on AFM provisions (Also see FSB Report Paragraph 3.1); CHDO
- 121.581 complies
- 121.587 designs in compliance; operator procedures CHDO
- 121.589 designs in compliance; operator procedures CHDO
- 121.629 appropriate evaluation of "under wing frost" due to cold fuel is addressed in B757/B767 Operations Manuals 02.17.01; CHDO
- 121.652 "high limit" minima jointly apply to B757/B767 PIC; CHDO

#### **MISCELLANEOUS**

- a. ADVISORY CIRCULARS
- 1) AC 00-50A Low Level Wind Shear Aircraft operating procedures are consistent with this AC Windshear alerting flight guidance system installed meets 14 CFR § 121.358.
- 2) AC 20-130 and AC 90-45A Area Navigation/Multi Sensor Navigation Systems in US NAS Meets or exceeds all requirements for enroute or approach area navigation systems when radio updating is taking place. Aircraft may file "/R" flight plan suffix for routes having suitable VOR/DME coverage.
- 3) AC 90-79 Use of Electronic Navigation in Remote Areas Aircraft systems and procedures are consistent with this AC.
- 4) AC 91-6A Water, Slush, and Snow on Runway Aircraft systems and procedures are consistent with this AC.
- 5) AC 91-53 Noise Abatement Departure Profile Aircraft systems and procedures are consistent with this AC.
- 6) AC 120-28C Category III AFM provisions address Category III requirements. Cat IIIb minima are based on fail operational autoland ("LAND 3" mode). Fail passive autoland ("LAND 2" mode) is limited to Cat IIIa.
- 7) AC 120-29 Category II Aircraft systems and procedures are consistent with this AC. AFM and MMEL include reference to configurations approved. As addressed by standard operations specifications.
- 8) AC 120-33 -Navigation Systems For Approval in MNPS Aircraft systems and procedures are consistent with this AC.

- 9) AC 120-35A LOFT Aircraft systems and procedures, and training, checking, and currency identified by the FSB are consistent with this AC. Specific provisions related to LOFT are addressed by paragraph 6.5.1 of this report.
- 10) AC 120-38 Cabin Ozone Concentrations B767 systems and procedures are consistent with this AC. B757 NA
- 11) AC 120-42A Extended Range Operations With Two-Engine Airplanes (ETOPS) Certain B767 and B757 variants have been shown to meet type design requirements for extended range operations (ETOPS) as specified by their respective AFM.
- 12) AC 121-3 Self Contained Navigation Systems Aircraft systems and procedures are consistent with this AC.
- b. FAA DIRECTIVES, POLICIES, AND US AIRMAN'S INFORMATION MANUAL:
- 1) The B767 is considered a "Heavy" aircraft and flight plans should be so designated. Wake turbulence characteristics are similar for all B767 variants. B757 Aircraft are not designated as "heavy", however, recent events have led to increased awareness that aircraft with operational gross weights and aerodynamic characteristics such as the B757, should be considered in application of ATC separation criteria.
- 2) For some B767 aircraft, airspeeds in excess of US standard limits (greater than 250 KIAS below 10,000 MSL...) may require routine crew requests for ATC deviation from speed limits when operating at heavy gross weights.
- 3) Flight Plan designators are B767 for all B767 variants and B757 for all B757 variants. No unique air traffic requirements are applicable to either the B757 or B767.

### AIRCRAFT ELIGIBILTY FOR VNAV INSTRUMENT APPROACH CREDIT

DATE: 1/09/2009

The following aircraft types meet, or are considered by FAA to meet the equivalent of FAA AC 20-129 "Airworthiness Approval of Vertical Navigation (VNAV) Systems for use in the U.S. NAS and Alaska", 9/12/98, for the purpose of conducting instrument approaches using VNAV capability, and using a DA(H), other than for ILS, MLS or GLS.

Aircraft types not currently on this list may be added to this list by the respective AEG, based on an applicant's showing that their FMS meets criteria of AC 20-129, or equivalent, for VNAV, and that the FMS can safely fly specified VNAV vertical paths associated with instrument approach procedures applying a DA (H) rather than an MDA(H).

# Boeing Aircraft Types

B737-300/400/500 B737-600/700/800/900/900ER B757 B767 B747-400 B777 MD11 MD88/90 B717

# Airbus Aircraft Types

A300-600/A310 A319/320/321 A330 A340

# Other Aircraft Types

1) Aircraft having been demonstrated to meet AC 20-129 (9/12/88) with a suitable statement in their FAA approved AFM, or with a reference of meeting this AC in the record of the aircraft's type certification basis (Contact the relevant AEG or ACO for the aircraft type).

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2) Aircraft types having been demonstrated to FAA for use of RNP for approach that have operable VNAV capability, and have a statement in the AFM or Flight Manual Supplement referencing approval for RNP (e.g., STC installation of RNP capable FMS systems with VNAV).

# FLIGHT ATTENDANT PROCEDURES, LAND EVACUATION GUIDELINES B757-300 WITH STANDARD EXIT ARRANGEMENT (SINGLE LANE SLIDES AT DOOR 2)

3/22/99

# **Entry/Service Doors and Emergency Exits**

Use positive commands in a strong and forceful voice when directing the evacuation, such as:

- \* EVACUTE
- \* RELEASE YOUR SEAT BELTS
- \* GET OUT OF YOUR SEATS
- \* COME THIS WAY

Single lane slides are located at each entry/service door and at the emergency exits. During an emergency, it is very important to establish single lane flow to ensure a timely evacuation.

After slide deployment, verify the slide is safe for use. Position yourself in the dedicated assist space for that exit. Make physical and/or verbal contact as soon as possible with the passengers approaching the exit.

At entry/service doors and emergency exits, again, strong, loud, positive commands must be used, such as:

- \* GO
- \* JUMP
- \* MOVE

If the exit will not open, or a hazard exists making it unsafe for use, take a position to prevent passengers from exiting. Hold passengers in the immediate area until the nearest usable exit can be determined. Redirect the passengers to the nearest usable exit. Forcefully inform the passengers that the exit will not be used and why, such as: "DOOR JAMMED" or "NO SLIDE".

Flight attendants must monitor the progress of the evacuation and the condition of the slide at their assigned station. Should conditions change such that the safety at an exit is in doubt, discontinue evacuation at that exit and redirect the passengers to alternate doors.

In the following guideline, "adjacent exit" is defined as the exit forward or aft of the "assigned exit." "Adjacent exit" is not used to refer to the exit across from the assigned exit.

# **Emergency Evacuation Guidelines**

Communicate with the flight deck.

If time permits, use the PA to:

- \* brief the passengers (exits, protective positions, and other information, as required)
- \* assign helpers
- \* order the removal of high heels and other restrictive articles

Maintain brace position until the airplane comes to a complete stop.

#### **Initiate Evacuation:**

- \* Ensure the airplane has stopped and engines are shutdown
- \* Upon the captain's command, activate the emergency evacuation signal system (as installed)
- \* Move to assigned stations
- \* Assess inside and outside conditions

#### If Exit Is Usable:

- \* Open the exit.
- \* Pull the manual inflation handle (if required).
- \* Command passengers to stand back until the slide is fully deployed.

Be assertive (forceful) in your commands. Research has proved assertive action by cabin crew can accelerate passenger emergency evacuation rates. (It is extremely important that assertive actions be strongly emphasized in any flight attendant training program.)

\* Assume a protective position in the dedicated assist space.

All floor level exits have a dedicated assist space forward or aft of the exit. Maintain your position in the assist space, keeping the exit path clear to prevent interfering with passenger evacuation. When the assist space is against a vertical surface (such as a partition, lavatory, or galley), keeping your heels and upper back pressed against that surface helps to ensure that you stay clear of the exit path.

- \* Command passengers to evacuate.
- \* Continually assess conditions inside the aircraft and on the slide to ensure passenger flow is maintained.

Passengers who sit and delay at the top of the slide rather than jumping will slow the evacuation. Commanding the passenger behind such a "sitter" to push that person out onto the slide can prevent significant delays in an evacuation.

- \* Take appropriate action to assist hesitant passengers.
- \* Take action to speed up hesitant passengers. Use sharp verbal commands. For hesitant passengers within your reach, push at waist level to move them through the exit. Do not push at knee or shoulder level.
- \* If there are no more passengers approaching your exit and the exit across from you has dried up (passenger flow has ceased), take appropriate actions to:
- \* Attract additional passengers to come toward your exit; use strong, loud, positive commands.
- \* If necessary and if conditions permit, move down the aisle toward the closest exit to gain the attention of an attendant to initiate the redirection of passenger toward your exit.
- \* Continue to monitor and protect your exit.

In mixed class airplane interiors, passenger densities in the forward zone the cabin are lower than in the middle and aft zones. Use of redirection to maintain flow at the forward doors becomes even more important in these airplanes.

\* Exit the airplane following the last passenger, using the nearest exit.

#### If Exit Is Not Usable:

- \* Block the exit to prevent passenger evacuation, while informing passengers that the exit is blocked.
  - \* If your exit is not usable, you must perform those duties of managing the cabin evacuation by the following:
  - \* First, establish passenger flow away from the unusable exit, and then
  - \* Direct passenger flow to the usable exits.
  - \* Assess usability of other exits.
- \* Visually determine that passenger flow has been established through a usable exit before redirecting passenger flow.
- \* Direct passengers to nearest usable exit by issuing appropriate commands and using arms and hands to point passengers in direction of exit.
- \* When in your best judgment, passenger flow has been established away from an unusable exit and toward a usable exit, proceed to an appropriate location to direct passengers to balance flow to nearest usable exits.

- \* Minimizing evacuation time requires maximizing utilization of all usable exits throughout an evacuation. Evacuation time will be minimized when passenger flow to all usable exits ends at the same time.
- \* Maintain awareness of evacuation progress in other can areas and at usable exits. Directing or redirecting passengers may be necessary to help maintain equal flow to each exit.
- \* If there are no more passengers approaching your exit and/or a usable exit across from you has dried up (passenger flow has ceased), take appropriate actions to:
- \* Attract additional passengers to come toward the usable exit near you; use strong, loud, positive commands. If necessary and if conditions permit, move down the aisle toward the nearest exit to gain the attention of an attendant to initiate the redirection of passengers toward your exit.
- \* Continue to monitor and protect your exit.

In mixed class airplane interiors, passengers densities in the forward zone of the cabin are typically lower than the middle and aft zones. Use of redirection at middle and aft zones to maintain flow at the forward doors becomes even more important in these airplanes.

- \* If you see that passenger flow has ceased at an adjacent exit, and significant numbers of passengers remain in your exit area, redirect passengers toward the adjacent exit to maintain balance exit utilization.
- \* When redirecting, avoid disrupting passenger flow to the usable exit nearest you. Redirect passengers singly or in small groups to maintain balance flows.

Total evacuation time is minimized when passengers clear all exits (passenger flow at all exits ceases) at the same time.

**Note**: It is not possible to cover all conceivable evacuation scenarios with one set of procedures. It is extremely important for flight attendants to assess each emergency situation and exercise their best judgment in how to evacuate the passengers safely in minimum time.

# Flight Attendants Not Assigned To An Exit:

The general responsibility of flight attendants not assigned to an exit is to assess conditions and then assist in the evacuation of passengers.

In mixed class airplane interiors, passenger densities in the forward zone of the cabin are typically lower than the middle and aft zones. This could result in the forward exits being under-utilized.

- Evacuation time will be minimized when passenger flow to all usable exits ends at the same time.
- Flight attendants seated in the forward half of the airplane should balance passenger evacuation between the forward exits by encouraging and assisting passengers to exit out of any underutilized exit. This would include assisting in redirecting passengers, if required, to an underutilized exit.
- Flight attendants seated the rear half of the airplane should balance passenger evacuation between the two rear exits by encouraging and assisting passengers to exit out of the most rearward exits. This would include assisting in redirecting passengers, if required, to an under-utilized exit.

It is important that the flow of passengers from the forward cabin zone do not slow the evacuation out of a mid cabin exit, when a more forward exit is available. A flight attendant situated in the forward half of the airplane, not having primary exit responsibilities during an evacuation, should use every means possible to redirect passengers to under-utilized exits, as conditions permit.

Note: Flight attendants may be faced with unique evacuation scenarios. In such cases, flight attendants must assess the overall situation to decide the best course of action to ensure a safe and rapid evacuation of passengers and crew.

# B767-400ER DIFFERENCES TRAINING CURRICULUM OPITONS TABLE

DATE: 9/20/00

# 767-400ER Differences Training Curriculum Options Table

Option	Lessons 1A & 1B (4 hours)	Lessons 2A & 2B (4 hours)	Partial Proficiency Check (PPC) (1.5 hours)	Line Oriented Flight Training (LOFT) (4 hours)	Supervised Line Flying (SLF)
A	FTD	FTD	*FTD	FTD (no PPC)	*(3)
В	FTD	FTD	Not Required	*FTD (PPC)	*(3)
С	FTD	FTD	Not Required	*FFS (PPC)	*(2)
D	FTD	FTD	*FFS	Not Required	*(2)
E	FFS	FFS	*FFS	Not Required	*(1)
F	FFS	FFS	Not Required	*FFS (PPC)	*(1)
G	FFS	FFS	*FFS	FFS (no PPC)	Not Required

\*NOTE: A 767-400ER qualified check airman must observe one of the following prior to releasing an airman to the line:

- Partial Proficiency Check (PPC)
- Line Oriented Flight Training/Partial Proficiency Check (LOFT/PPC)
- One Leg Supervised Line Flight (SLF)

Even though a level-6 FTD is the approved minimum flight training device, for airline planning purposes, alternate methods of satisfying the airplane operating experience requirement are provided as Options A through G in the table above. These alternate methods involve the benefit of training in a higher level fidelity flight training device and gaining the flexibility of customizing each individual airline's training operation, e.g. utilizing a Full Flight Simulator (FFS).

The type and amount of airplane operating experience requirements are satisfied depending upon the level of simulator training device in which the training is conducted. Referencing the 767-400ER Differences Training Curriculum Options Table, option A requires a Level-6 FTD for lessons 1A, 1B, 2A, and 2B; a Partial Proficiency Check (PPC); and Line-Oriented Flight Training (LOFT). Therefore, if an operator elects Option A, then 3 legs of Supervised Line Flying (SLF) is required to satisfy the airplane operating experience. Conversely, if an operator elects Option G, which requires and FFS for lessons 1A, 1B, 2A, and 2B; a Partial Proficiency Check (PPC); and Line-Oriented Flight Training (LOFT), then no SLF is required.

# **EXAMPLE HUD TRAINING REQUIRMENTS**

# HEAD UP DISPLAY TRAINING REQUIREMENTS

The HUD pilot training is integrated in all B757 and/or B767 ground and flight training. It should be noted that the program focuses principally upon training events flown in the left seat by the pilot-in-command (PIC) in 14 CFR part 121 operations. Nevertheless, first officer indoctrination and training is also essential. Additional training is required for operators to receive credit for low visibility operations

- 1. <u>INITIAL GROUND TRAINING</u>: For airline operators, initial training should be conducted in accordance with the applicable provisions of 14 CFR §§121.415, 121.419, 121.424, and 121.427 and the airline operation specifications. For all operators, the initial ground training program should include the following elements:
  - A. Classroom instruction (or CBT) covering HUD operational concepts, crew duties and responsibilities and operational procedures including preflight, normal and non-normal pilot activities.
  - B. Classroom instruction (or CBT) on the HUD symbology set and it's inter-relationship with airplane aerodynamics, inertial factors and environmental conditions.
  - C. A HUD pilot training manual or equivalent material in the Operations Manual which explains all modes of operation, the use of various HUD controls, clear descriptions of HUD symbology including limit conditions and failures, and incorporating use of the HUD into existing crew procedures
- 2. <u>Initial Flight Training:</u> For all operators, initial flight training should be conducted in accordance with the applicable provisions of 14 CFR part 121 or 14 CFR part 142. HUD familiarization and proficiency is integrated into the flight training program. For flight simulator training, approach training should be conducted with a sufficient final approach segment to identify and train the appropriate symbology and HUD usage.

The following flight training program is generic in nature and should not be construed to dictate what is included in the course of instruction. This training can be integrated in the basic training course. Each operator has his own unique requirements, route structure, fleet composition and operations policies to consider in developing their training program. Therefore, what follows might be considered as a guide to an operator who is tailoring a HUD training program to fit his own needs.

- A. <u>Air work</u> Air work integrated into the training program. Emphasis should be placed on HUD unique symbology, i.e., flight path, flight path acceleration, airspeed error tape, and the commonality with the heads down display (the PFD). When this training is complete, the trainee should have a thorough understanding of the relationship between aircraft flight path parameters and the HUD symbology.
- B. <u>Visual Approaches</u> Sufficient approach work to show HUD symbology and use in relation to glide path, centerline control, and crosswind conditions.
- C. <u>Instrument Approaches</u> Sufficient ILS/GLS and non-ILS approaches, missed approaches, and landings with appropriate weather minimums to show HUD symbology and gain proficiency in these maneuvers.

#### HUD TAKEOFF DURING LOW VISIBILITY OPERATIONS

#### TRAINING REQUIREMENTS

For operators authorized for low visibility takeoff operations predicated on use of the HUD TAKEOFF function, training should be conducted in accordance with AC 120-29 and AC 120-28, as revised.

# RECURRENT REQUIREMENTS

For operators authorized for low visibility operations predicated on use of the HUD TAKEOFF function, recurrent training should be conducted in accordance with AC 120-29 and AC 120-28, as revised.

Selected ground training subjects should be reviewed annually.